

DECISION SCIENCES INSTITUTE

An Anomaly in MTABS Analysis of Cross-Tabulations

John R. Dickinson
University of Windsor
Email: MExperiences@bell.net

ABSTRACT

“Moves To and Beyond Significance” (Dickinson 2016, MTABS) is a form of sensitivity analysis for the chi-square test of independence of a cross-tabulation. Single observations are hypothetically successively moved between two cells culminating in the percent of observations so moved to achieve statistical significance or to achieve statistical insignificance. Beginning with the original cross-tabulation MTABS operates in two directions: “To” statistical significance (i.e., increasing the chi-square statistic) and “Beyond” statistical significance (i.e., decreasing the chi-square statistic). In this process, though, an anomaly may arise. Researchers who would apply MTABS must recognize this possibility and accommodate it in their analyses.

KEYWORDS: MTABS, Chi-square, cross-tabulation

Complete text and references available upon request.